## REMARKS

In the Office action mailed December 19, 2007, claims 1-10 were rejected. Pursuant to this Amendment accompanying a Request for Continued Examination, claims 1, 3, 6 and 8 have been amended. Withdrawal of the rejections and reconsideration and allowance of claims 1-10 are respectfully requested in view of the following remarks.

Claims 1-9 have been rejected under 35 U.S.C. § 102(b) as being anticipated by Anderson (U.S. 4,832,121). Claim 10 has been rejected under 35 U.S.C. § 103(a) as being obvious in view of Anderson and Williams (U.S. 6,497,279). These rejections are respectfully traversed.

Claim 1, as amended, recites a method usable with a wellbore that comprises, among other elements, stopping injection of fluid into a formation; and observing temperature of the wellbore at least partially along an uphole section and at least partially along a formation section of the wellbore while the injection of fluid is stopped. Claim 1 further recites re-starting injection of fluid into the formation in response to observation of a temperature peak in the uphole section of the wellbore, observing movement of the peaked temperature fluid as it moves from the uphole section and across the formation section while injection of fluid is re-started is occurring; and determining an inflow profile of the formation based on the movement observed while the injection is occurring.

Anderson does not teach or disclose all of the limitations recited in claim 1. Anderson discloses a method for monitoring temperature during and after a well treatment. According to Anderson's method, temperature is monitored during injection of fluid into a packed interval to monitor and control fracture growth. During injection, observed temperature peaks move from the largest volume of the fracture and towards the uphole and downhole sides of the fracture, thus indicating the growth of the fracture. *See* Anderson, Fig. 2, profiles 1-5. Once the fracture has reached the desired depth level, the well is shut in and, over time, the temperature peak delineating the fracture interval disappears. Anderson, Fig. 2, profiles 6-9; 6:54-60. Anderson further discloses that when the well is produced and back flow from the fracture interval to the surface occurs, the temperature peak of the fluid moves uphole from the largest volume of the fracture towards the surface. Anderson, Fig. 2, profiles 10-14; 7:3-20.

The examiner has stated that Anderson anticipates claim 1 because Anderson discloses a fracture treatment that is conducted in stages, with each stage comprising a pressure pulse, a rapid shut-in, and a waiting period to allow full development of the temperature-vs-depth profile through conduction/convection between the borehole and fracture. In this way, the full height of the fracture could be determined from the profile of each stage before deciding whether a further pressure pulse is needed. (Office action, page 3).

Anderson does not, however, disclose that repeated fracturing pulses are started in response to observation of a peaked temperature fluid in a section of the wellbore that is uphole of the fracture and then, while re-starting of injection is occurring, observing the movement of the peaked temperature fluid as it moves from the uphole section and along the formation section of the wellbore. Rather, in Anderson, while injection is occurring, any peaked temperature fluid moves in the opposite direction to that which is recited in claim 1. More specifically, as shown in Fig. 2 of Anderson, the peaked temperature fluid moves away from the formation as the formation is grown by the fracturing pulse. The peaked temperature fluid thus is monitored in Anderson to determine the growth of the fracture. Once the peaked temperature fluid indicates that the fracture has been grown to a particular height (i.e., a height that does not reach a water zone), then no further fracturing pulses are provided.

To the extent that the examiner is alleging that a further fracturing pulse is provided based on an observed temperature peak that indicates that the formation can be grown further, Anderson still does not disclose all the elements recited in claim 1. This is because claim 1 further requires that the movement of the peaked temperature fluid along the formation section is observed ***while re-starting of injection is occurring*** to determine the inflow profile of the formation section. While Anderson may disclose that fluid movement may be monitored to determine certain characteristics of the well, such monitoring occurs during a shut-in period and not during injection, as required by claim 1. Observing movement of the peaked temperature fluid as it moves from the uphole section and along the formation section during ***injection*** rather than during ***shut-in*** provides the advantage of substantially shortening the shut-in period. This is because, for wellbores that have been

produced for a long period of time, temperature must be monitored along the formation for a substantial period of time during shut-in before the relevant information may be extracted from the warmback curves. (Specification, pages 7-8).

Based on the foregoing, it is respectfully submitted that Anderson does not disclose all the limitations recited in claim 1, and withdrawal of the rejection of claim 1 under 35 U.S.C. § 102(b) is respectfully requested.

With respect to independent claim 8, it has been amended to recite a system that comprises an injection system to inject and stop injection of fluid into a formation that is intersected by a wellbore having an uphole section uphole of a formation and a formation section within the formation. Claim 8 also recites an observation system to observe temperature at least partially along the uphole section and at least partially along the formation section. The system is configured such that, after injection of fluid is stopped, the injection system re-starts injection of fluid in response to an observed peak in temperature in the uphole section of the wellbore. While re-starting of the fluid injection is occurring, the observation system observes movement of the peaked temperature fluid as it moves from the uphole section and across the formation section. The system further comprises a processing system to determine an inflow profile of the formation based on the movement of the peaked temperature fluid that is observed while re-starting of the injection of fluid is occurring.

For the reasons discussed above, Anderson, at a minimum, does not teach an observation system that observes movement of peaked temperature fluid from the uphole section and across the formation section while re-starting of fluid injection is occurring. Anderson further does not teach a processing system that determines an inflow profile of the formation based on the fluid movement that is observed during this period. Accordingly, it is respectfully submitted that amended independent claim 8 also is patentably distinguishable over Anderson.

Claims 2-6 and 7-9 are also allowable over Anderson for at least the reason that these claims depend from claims that are patentably distinguishable over Anderson, and, thus, withdrawal of the § 102 rejection of claims 2-6 and 7-9 is respectfully requested.

With respect to the obviousness rejection of dependent claim 10 in view of Anderson and Williams, Williams does not compensate for the deficiencies of Anderson that have been discussed above. Accordingly, it is submitted that claim 10 is patentable over Anderson and Williams, and withdrawal of the obviousness rejection of claim 10 is respectfully requested.

## Conclusion

For the reasons specified above, claims 1-10 are believed to be allowable over the cited references and in condition for allowance. Accordingly, the examiner is respectfully requested to issue a Notice of Allowance. Should the examiner feel that a telephonic interview would speed this application towards issuance, the examiner is requested to call the undersigned attorney at the telephone number provided below.

The Commissioner is authorized to charge any additional fees, including extension of time fees, or credit any overpayment to Deposit Account No. 20-1504 (SHL.0405US).

Respectfully submitted,

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